

IN THE SPECIFICATION

Please amend the specification, on page 1, line 5 by inserting the following immediately following the title of the invention:

CROSS-REFERENCE TO RELATED APPLICATIONS

This U.S. national phase application claims priority of PCT application no. PCT/US04/18565 filed June 14, 2004. This application also claims the priority benefit of U.S. provisional application, filed June 12, 2003.

IN THE CLAIMS

1. (CURRENTLY AMENDED) A multielectrode array for receiving voltage signals from neurons, the multielectrode array comprising:

A substrate;

At least two ~~receiving~~ electrodes partially contained in said substrate, each of said at least two ~~receiving~~ electrodes having a carbon fiber with an exposed end extending beyond the substrate, an unexposed end within the substrate, and a center, said exposed end capable of being embedded in neural tissue, ~~said carbon fiber's unexposed end coupled to a metal wire's first end, said metal wire's second end being coupled to the input to a pre-amplifier~~; and

An electrical insulator covering at least a portion of each of the at least two ~~receiving~~ electrodes.

2. (ORIGINAL) The multielectrode array as in Claim 1, where each of said at least two carbon fibers has any combination of at least one of the characteristics independently selected from the group consisting of: a coating on the exposed end, a sharpened tip, and varied length of the exposed end.